

EXHIBIT A

trically connect [22] for ESD protection?
 [23] A: No, because that's limiting it to [24] that. It's limiting it to the ESD protection.

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[1] And I wouldn't agree that it's — [2] that the purpose — in fact, Mr. Holmberg said [3] that his main purpose in interconnecting was for [4] testing.

[5] Q: That wasn't my question, Dr. [6] Howard. My question was: If the purpose of [7] interconnecting is to disburse charge, as it has [8] nothing do with testing, if the purpose of [9] interconnecting is to disburse charge, wouldn't [10] you agree that for that purpose the function of [11] interconnecting is to electrically connect for [12] ESD protection?

[13] A: I'm sorry. It seems to be saying [14] if the purpose is this, then the purpose is [15] this.

[16] Q: No.

[17] A: I mean, function and purpose —

[18] Q: If —

[19] A: — are somewhat related.

[20] Q: Okay. So if the — if you want to [21] interconnect the disburse charge, is the purpose [22] or the function — we'll say the function. Try [23] to limit it down.

[24] Is the function to electrically

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[1] connect for ESD protection?

[2] A: You'll have to repeat that again. [3] I'll try it again.

[4] If the purpose of interconnecting [5] is to disburse charge, is the function of [6] interconnecting to electrically connect for ESD [7] protection? One of the functions would be for [8] that.

[9] Q: And the way you can do that [10] interconnecting is by providing an electrical [11] conduction path; is that correct?

[12] A: The way you can do that for [13] dispersing charge is to provide a path that is [14] conducting in the event of an electrostatic [15] discharge.

[16] Q: And as a result of providing that [17] conductive electrical path, the interconnecting [18] lines would then be able to disperse charge for [19] ESD protection; isn't that right?

[20] A: This is going back to what we said [21] before, you're speaking now independent of the [22] guard ring, which is the main carrier for [23] dispersal, and as I said earlier, that it [24] wouldn't function that way if there was — if

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[1] the guard ring were present because the charge [2] would flow immediately to the guard ring rather [3] than going to the

other lines given the more [4] resistive path.

[5] Q: I'm just asking something much [6] simpler I think, is that if you provide an [7] electrical conduction path that interconnects [8] the row lines, for example, that as a result of [9] providing that electrical conduction path, the [10] interconnective lines can disperse charge for [11] ESD protection?

[12] A: Well, certainly the diodes can [13] disperse charge under electrostatic discharge to [14] the guard ring and through the guard ring if [15] that's what you're trying to get at.

[16] Q: Whether the electrical conduction [17] path is through diodes or any other material, if [18] you have the electrical conduction path, the [19] electrical conduction path meaning something [20] that conducts in the conduction band, use [21] diodes?

[22] A: It has to be — that doesn't — it [23] has — obviously it has to be a good enough path [24] so that it would conduct before the voltage

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[1] would get so high that it would break down [2] everything in the array.

[3] Q: The purpose, in fact, the claim [4] says to provide protection from electrostatic [5] discharges between the row and column activation [6] lines during manufacture; isn't that right?

[7] A: Yes.

[8] Q: And the row and column lines are [9] actually where the active TFT, where the pixels [10] are; right?

[11] A: At the intersections of the row [12] and columns are where the pixels are, yes.

[13] Q: You mentioned earlier your comment [14] about the guard ring. If I could see Howard [15] 101, please.

[16] You testified, make sure I'm [17] correct, that all of CPT's products, the outer [18] guard ring consist of gate metal, source metal [19] and ITO; is that right?

[20] A: Yes.

[21] Q: If I understand correctly, then, [22] and recognize — and I think Dr. Schlam [23] mentioned this is not drawn to scale, it's just [24] drawn for illustration, and he explained these

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[1] are much thicker than actual, but what you're [2] saying here is the guard ring then is the red [3] metal layer, the pink metal layer, and the blue [4] metal layer; is that right?

[5] A: Yes.

[6] Q: Now, you also testified earlier [7] that you reviewed Dr. Schlam's infringement [8] report, didn't you?

[9] A: Yes.

[10] Q: And you actually said you reviewed [11] his exhibits because I think you put one of the [12] exhibits up during your presentation. Did you [13] review his report carefully?

[14] A: I think so.

[15] Q: And you understand that Dr. Schlam [16] is saying that the outer guard ring is made up [17] of just the first metal layer; right? In other [18] words, it does not include the source drain [19] metal and it does not include the ITO?

[20] A: I think he has said the outer [21] guard ring consist of three metals in some [22] places, and then some cases he refers to the [23] gate metal as the outer guard ring to which one [24] connects with a resistance.

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[1] Q: Let's look at his report so we can [2] try to avoid confusion and we'll look at the [3] testimony that I think you were referring to. [4] Okay. The bottom it says CPT admits that the [5] following steps are used to form the gate [6] electrodes, gate lines, gate pads, and short [7] rings for each of its displays.

[8] Now, do you understand that short [9] rings refers to the guard ring?

[10] A: Yes.

[11] Q: And the — this layer, this talks [12] about —

[13] MS. CORBIN: Objection, Your [14] Honor. This portion of Dr. Schlam's report is [15] based entirely and it's a verbatim practically [16] reproduction of the interrogatory response that [17] Your Honor excluded yesterday in this case [18] because it relates to a different case and a [19] totally different set of facts.

[20] MR. GOODWYN: Your Honor, I [21] believe the issue, if I'm correct, was that [22] Mr. He had not seen those interrogatory [23] responses and this witness has now testified [24] that he has seen the interrogatory responses.

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[1] It's the basis of Dr. Schlam's opinion as to why [2] he defined the guard ring to be the structures [3] that it is. And it's just in his report and [4] he's testified that he read his report and the [5] exhibits.

[6] THE COURT: All right. I'm going [7] to sustain the objection to refrain from using [8] these interrogatory responses from the other [9] matter.

[10] MR. GOODWYN: Okay.

[11] BY MR. GOODWYN:

[12] Q: I'll block that portion out. [13] Okay. But CPT admits —

[14] MS. CORBIN: Objection, Your [15] Honor. It's based on the interrogatory. You [16] can't separate the first two

on its way in.

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[1] Jury entering the courtroom at [2] 3:55 p.m.)

[3] THE COURT: All right. Be seated, [4] please.

[5] BY MR. GOODWYN:

[6] Q: You also discussed validity [7] opinions, didn't you, Dr. Howard?

[8] A: Yes.

[9] Q: Let's look at Defendants' Exhibit [10] 4, page three. Now, I believe the first [11] reference you discussed was the Okawa reference; [12] is that right?

[13] A: I believe that was the first one.

[14] Q: And this is actually the reference [15] from the actual — the figures from the actual [16] reference; isn't that correct?

[17] A: I haven't looked at the Japanese [18] version, I'm sorry.

[19] Q: Now, you testified, I believe, [20] that the interconnecting is done through the [21] diodes here; is that right?

[22] A: No, I said that if — if [23] interconnecting were to be found to be in CPT's [24] diodes, then it would be found here.

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[1] Q: These are MIM diodes shown in the [2] Okawa reference?

[3] A: Yes, they are.

[4] Q: And I believe you also testified [5] that Chunghwa uses the same structure as Okawa [6] does; is that correct?

[7] A: I said CPT practices Okawa.

[8] Q: But they don't really use the same [9] structure, do they?

[10] A: What do you mean by structure?

[11] Q: Chunghwa does not use MIM diodes, [12] do they?

[13] A: No, they do not.

[14] Q: Now —

[15] A: Well, Okawa says you can use other [16] elements.

[17] Q: But it shows a MIM diode, doesn't [18] it?

[19] A: It shows MIM diodes, he describes [20] MIM diodes, but he says it's not limited to [21] that.

[22] Q: We'll look at that. Can I see the [23] full figure.

[24] Now, would you agree — let me

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[1] show the figure here, Figure 4. That's a [2] cross-section of the MIM diode; is that correct?

[3] A: Yes, it is.

[4] Q: And would you agree that there is

[5] no connecting through metal shown in Figure 4?

[6] A: That's correct.

[7] Q: And would you also agree that [8] there is no connecting through semi-conductors [9] shown in Figure 4?

[10] A: That's also correct.

[11] Q: Now, a MIM diode, correct me if [12] I'm wrong because I tried to write it down [13] quickly while you were talking, you said that a [14] MIM diode, the insulator, there is a thin layer [15] insulator breaks down during operation; is that [16] right?

[17] A: Well, I was using the term [18] loosely. It's a controlled, sometimes referred [19] to as breakdown, that particular phenomenon.

[20] Q: In fact, I think you specifically [21] said MIM diodes do not operate by tunneling; is [22] that correct?

[23] A: Yes.

[24] Q: Let's see what Professor Sze has

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[1] to say. In fact, he calls them MIM tunnel [2] diodes, doesn't he?

[3] A: He does.

[4] Q: He even calls it the tunnel [5] current, doesn't he?

[6] A: He does. But I don't know what [7] his source was because there were many papers on [8] it in the display industry.

[9] Q: Well, you said that Professor Sze [10] was an authority, a renowned authority, didn't [11] you?

[12] A: He's a renowned authority, yes. [13] It just shows no one is perfect.

[14] Q: So according to Dr. Sze, a MIM [15] operates by electrons actually tunneling through [16] the insulator; isn't that right?

[17] A: That's what you just showed me.

[18] Q: Now, if I can see the full figure [19] of Okawa again, please.

[20] Now, looking at Figure 2, this [21] figure does not disclose removing the guard [22] ring, does it?

[23] A: Well, the figure doesn't disclose [24] it.

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[1] Q: The text associated with the [2] figure doesn't disclose it either, does it?

[3] A: The overall text discloses it by [4] its inclusion of the prior art, and also by the [5] description that Okawa's invention is an [6] improvement on the prior art.

[7] Q: Well, the prior art you're talking [8] about is Figure 5 right here, isn't it?

[9] A: Yes.

[10] Q: And the discussion in Okawa about [11] removing the guard ring is directed only to [12] Figure 5, isn't it?

[13] A: What do you mean the discussion?

[14] Q: Well, you said that there is some [15] discussion in Okawa about removing the outer [16] guard ring; isn't that right?

[17] A: Yeah, in describing the prior art, [18] it has in the words removing.

[19] MR. GOODWYN: If I could get the [20] elmo, again, please.

[21] BY MR. GOODWYN:

[22] Q: In fact, it says a conventional [23] method shown in Figure 5, connection is removed [24] after manufacturing process is completed.

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[1] A: Yes.

[2] Q: That discussion is related to the [3] Figure 5 prior art?

[4] A: Yes, that's correct.

[5] Q: But with respect to Figure 2, [6] there's no discussion about removing the guard [7] ring, is there?

[8] A: There's no discussion. It just [9] seems to be implicit in his statements.

[10] Q: But there's no explicit reference [11] about removing it, is there?

[12] A: Well, it's explicit. But there [13] aren't any words that say in connection with [14] Figure 2, this would be removed.

[15] Q: In fact, you talked about the [16] operating voltage, where here is a test voltage [17] on — or here's a test voltage. Here's a [18] breakdown voltage.

[19] Isn't it possible that the [20] operating voltage could be at the same level as [21] the testing voltage?

[22] A: Well, it's possible, but it's not [23] typical.

[24] Q: And if that were the case, you

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[1] would not need to remove the outer guard ring, [2] would you?

[3] A: If that were the case, you would [4] not need to. But in that case, he would have [5] probably mentioned that you could leave this on [6] after testing and during operation.

[7] Q: In fact, for your argument, you [8] had to combine the elements or combine parts of [9] this embodiment shown in Figure 2 with parts of [10] a different embodiment shown in Figure 5 to try [11] to create your claim chart with respect to Claim [12] 1; isn't that right?

[13] A: Well, I certainly took the [14] different parts of his publication together to [15] make the argument, yes.

[16] Q: Okay. Now, let's look at [17] Kawamura, which is Howard 150. Okay.

[18] MR. GOODWYN: If we could blow up, [19] I guess, the top figure.

[21] BY MR. GOODWYN:

[22] Q: Again, it's blurry. You would [23] agree, wouldn't you, that this figure from [24] Kawamura shows a guard ring that is inside the

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[1] pads?

[2] A: It does show a guard ring that is [3] inside the pads, but you — it doesn't have to [4] be inside the pads.

[5] Q: But that's what's shown?

[6] A: That's what's shown.

[7] MR. GOODWYN: Can I see Howard [8] 156, please? If we could blow up Figure 2.

[9] BY MR. GOODWYN:

[10] Q: Now, this was from the Yudasaka [11] reference. And again, this shows the guard ring [12] inside the pads; right?

[13] A: Well, yes, but it's a permanent [14] guard ring.

[15] Q: And you call that an inner guard [16] ring?

[17] A: Yes.

[18] Q: Okay. Now, let's look at Howard [19] 157.

[20] MR. GOODWYN: Howard 157. Here we [21] go.

[22] If we can blow up the figure.

[23] BY MR. GOODWYN:

[24] Q: Okay. Again, this shows the guard

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[1] ring inside the pads; isn't that right?

[2] A: Well, it doesn't actually show the [3] pads here.

[4] Q: Well, the pads would be connected [5] to the driver circuitry?

[6] A: Yes.

[7] Q: Okay. And you call this an inner [8] guard ring as well; is that right?

[9] A: Yes.

[10] MR. GOODWYN: Could we go back to [11] Howard 150, please?

[12] BY MR. GOODWYN:

[13] Q: You call this an outer guard ring, [14] don't you?

[15] A: Yes, because it could be moved to [16] the outer part. And it is also removable by a [17] process which Kawamura describes.

[18] Q: But you agree with me, don't you, [19] that this figure does not show removing the [20] outer guard ring in row and column [21] interconnections prior to completion of the [22] display, the last claim element as the Court has [23] defined that term for the '002 patent?

[24] A: The Court has defined it as

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[1] physically disconnecting.

[2] Q: When you say "physically [3] disconnecting", does that mean taking it off the [4] panel so it's no longer part of the panel?

[5] A: Well, Mr. Holmberg said you could [6] do it any way you wanted, as long as you [7] electrically disconnected it.

[8] Q: Are you saying that electrically [9] disconnecting meets the claim limitation for [10] removal?

[11] A: No. Physically. [12] But he happened to mention that. [13] But, for instance, this process is etching, [14] which is definitely considered a physical [15] process of taking metal away.

[16] Q: Does Kawamura, in any part of its [17] disclosure, talk about removing the entire guard [18] ring?

[19] A: No, he doesn't talk about it. But [20] he does say that you can remove portions, at [21] least portions. And by saying at least [22] portions, you could remove more than he says.

[23] Q: Do you believe that Kawamura, [24] where portions of interconnections are removed,

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[1] meet the limitation, removing said outer guard [2] ring and row and column interconnections prior [3] to the completion of the display, in accordance [4] with this Court's claim construction, for the [5] term removing the outer guard ring?

[6] A: I do believe that you can [7] physically disconnect with Kawamura's process.

[8] Q: Kawamura doesn't show removing the [9] entire guard ring. You already said that, [10] didn't you?

[11] A: Yeah, the figures don't show that.

[12] Q: So you're actually reading more [13] into the reference?

[14] MS. CORBIN: Objection; misstates [15] the testimony.

[16] THE COURT: I'll overrule the [17] objection.

[18] THE WITNESS: Well, I'm allowed to [19] look at the teachings. And in most inventions, [20] inventors don't want to be constructed to just [21] what they put in their figures, but what they [22] teach.

[23] BY MR. GOODWYN:

[24] Q: You're interpreting the figures in

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[1] the text; is that correct?

[2] A: Learning, interpreting, I'm trying [3] to understand what Kawamura's invention is and [4] how broad it is. And, yes, if that's — if [5] that's interpreting it, that's what I'm doing.

[6] Q: And you're an expert, aren't you?

[7] A: Yes.

[8] Q: You've got many, many years, [9] decades of years of experience in this field, [10] don't you?

[11] A: I do.

[12] Q: Now, the two references, Kawamura [13] and Okawa that we just spoke about, those are [14] the only two references you relied on in your [15] expert report regarding your validity opinion [16] for Claim 1 of the '002 patent; isn't that [17] right?

[18] A: The Okawa and the Kawamura?

[19] Q: Yes. Those are the only two; [20] right?

[21] A: Yes.

[22] Q: Did you locate these references [23] yourself?

[24] A: No, I didn't.

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[1] Q: Were they provided to you by [2] Chunghwa's lawyers?

[3] A: Yes.

[4] Q: Did they provide anymore [5] references to you regarding an outer guard ring?

[6] A: No, not regarding outer guard [7] ring.

[8] Q: To the best of your knowledge, did [9] Chunghwa and its lawyers search all over the [10] world for prior art references, and these are [11] the only two that they provided you with regard [12] to outer guard ring?

[13] MS. CORBIN: Objection; lacks [14] foundation.

[15] THE COURT: The objection will be [16] sustained.

[17] BY MR. GOODWYN:

[18] Q: Do you have any understanding as [19] to whether or not Chunghwa's lawyers searched [20] for more guard rings or more prior art [21] references?

[22] A: I don't know.

[23] Q: Did you ask?

[24] A: I asked them if, you know, they'd

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[1] done the usual thorough search, and yes.

[2] Q: What do you consider to be a [3] "usual thorough search"?

[4] A: Well, I know that there are [5] databases and that there are companies that [6] specialize in this. And that they have access [7] themselves, which, for instance, I don't have to [8] these databases.

[9] Q: Are those databases including — [10] do they include references from around the [11] world?

[12] A: Yes, they do.

[13] Q: Now, Dr. Howard, given the Court's [14] construction — and if I could put these up. [15] Sorry, I'm having a little trouble with [16] technology.

[17] Given the Court's construction for [18] interconnecting, removing said outer guard ring, [19] outer electrostatic discharge guard ring.

[20] Now, I'll turn the page, and [21] resistance. Given those claim constructions, is [22] it your opinion that none of the references [23] cited in your report, the Kawamura and Okawa, [24] applying those constructions anticipate Claim 1

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[1] of the '002 patent?

[2] A: As I interpret the instructions, [3] they do not. But what I said was if it is found [4] that another interpretation is followed where [5] the '002 patent covers the diodes and the [6] interconnection used by CPT, of the coupling of [7] the lines to the rings to diodes as used by CPT, [8] then in that case, it anticipates.

[9] But only in that case.

[10] Q: So is it fair to say that your [11] opinion is neither Okawa nor Kawamura anticipate [12] unless Chunghwa's products infringe?

[13] A: Well, that's stating it in a [14] difficult different way. I would just state it [15] if the claims of the '002 are stretched to where [16] they cover in the coupling to the outer ring [17] through diodes used by CPT, then those prior art [18] references become anticipatory.

[19] Q: Given the Court's claim [20] construction, the four terms we just went [21] through, is it your opinion that Claim 8 is not [22] obvious?

[23] A: Are you saying if my [24] interpretation of the claim construction were to

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[1] hold in my interpretation of the claim [2] construction, the diodes do not constitute a [3] resistance under the Court's construction?

[4] And of course, they both have [5] diodes.

[6] Q: Now, at your deposition, do you [7] remember being asked that same question?

[8] (Beginning of videotape excerpt:)

[9] Q: Given the Court's claim [10] construction ruling, is it your opinion today [11] that Claim 8 is not obvious?

[12] A: I think given the proper [13] construction, I would say that Claim 8 was not [14] obvious because of one of the elements.

[15] (End of videotape.)

[16] BY MR. GOODWYN:

[17] Q: Do you agree with that testimony?

[18] A: Well, that testimony was based on [19] my assumption that I could use my interpretation [20] of the — and that was stated earlier, I [21] believe, my interpretation of the Court's order [22] as regards a resistance.

[23] MR. GOODWYN: No more questions.

[24] MS. CORBIN: I have some redirect,

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[1] Your Honor.

[2] THE COURT: All right.

[3] REDIRECT EXAMINATION

[4] BY MS. CORBIN:

[5] Q: Dr. Howard, since we finished on [6] validity, let's go back to that first and then [7] we'll just have a few questions on the [8] infringement issue raised by counsel. [9] You mentioned that the Okawa [10] reference, in the figure it shows the MIM diode, [11] but in the text itself it suggest that you can [12] use other diodes. Can we show you the Okawa [13] reference itself.

And on page two, can you find [14] where in the text you believe there is support [15] for the — this reference teaching more than the [16] usage of MIM diodes? [17] Can we blow up that upper portion? [18] A: I didn't mark the place. It says [19] any symmetrical diode. I don't think it's here.

[20] Q: It's not where it mentions the — [21] well, up in the top where it mentions a [22] reversible voltage breakdown, does that have to [23] do with this subject?

[24] A: Oh, yeah, this is where — that's

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[1] right. Connecting one end of electrical [2] components with reversible voltage breakdown [3] properties to the end of bus lines, so it [4] doesn't say MIM diodes, it's components with [5] reversible breakdown.

[6] Q: And are there components other [7] than MIM diodes that fit this description?

[8] A: Yes. For instance, the diode [9] pairs used by CPT.

[10] Q: Those are electrical components [11] with reversible voltage breakdown properties?

[12] A: Yes, they work the same in both [13] directions when you put the two of them [14] together.

[15] Q: So would one of ordinary skill [16] reading the Okawa reference believe that it was [17] limited to a teaching of using MIM diodes to [18] connect the gate lines and source lines to the

[20] A: No, not based on that sentence.

[21] Q: And with respect to your [22]

application of the Court's definitions of [23] resistance and interconnecting, is it relevant [24] whether a MIM diode conducts by means of

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[1] tunneling or any other means?

[2] A: No, it is not.

[3] Q: And talking about Kawamura again, [4] are you looking at only one figure of Kawamura [5] when you are summing up what that reference [6] teaches?

[7] A: No, not generally, no.

[8] Q: And did you point to the actual [9] text where you believed there is support for [10] physically removing the ring, the outer ring, so [11] that it is not present in the final display?

[12] A: Yes, I did.

[13] Q: And how does Kawamura teach [14] removing the outer guard ring?

[15] A: Well, he teaches etching.

[16] Q: And can you —

[17] A: But —

[18] Q: Can you explain what that is?

[19] A: Most of the materials as we've [20] discussed are under insulators and so they would [21] be protected from some acids by the insulator, [22] but what he teaches is opening up a hole in that [23] installation so that acid could reach a metal [24] and take it away.

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[1] Q: And could we see figure — could [2] we see Figure 3 of the Kawamura reference.

[3] So does the Kawamura reference [4] teach that you could etch away as required in [5] the last step of Claim 5 the outer guard ring [6] and its interconnections?

[7] A: Yes, because you could extend the [8] point of etching, you know, along those lines. [9] He uses only points because he was only [10] interested in interrupting the electrical flow, [11] but he mentions that in using that phrase at [12] least portions can be removed that you could, in [13] fact, remove more than portions.

[14] Q: Could we see that page two of the [15] reference. The place where it's talking about [16] at least portions, does that actually appear in [17] the specification or in the claims part of this [18] reference?

[19] A: It's in the claims part here, this [20] is where it's shown, at least portions.

[21] Q: And when you see at least portions [22] in the context of a claim, what is the [23] implication of that?

[24] A: It means it can be more of it or

claims of the '002 patent are invalid by [18] anticipation?

[19] And then I have included in Claim [20] 1 and Claim 8 for an individual yes or no [21] response.

[22] Then question 9 of plaintiff's [23] proposal becomes question 11 and I do the same [24] thing about the obviousness issue, having a

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[1] space for Claim 1 and Claim 8.

[2] And then I go to the page ten, and [3] say to the jury, "If you found infringement of a [4] valid claim, please answer question 12." That's [5] the next question. "If you have not found [6] infringement or you have found infringement only [7] of a claim you have found to be invalid, do not [8] answer question 12." I struck the next [9] sentence.

[10] And then question 12 says, "What [11] sum of money would fairly and adequately [12] compensate the plaintiff for infringement?" And [13] then there is a place for the answer.

[14] So in essence I got to question [15] five on defendants' proposal and then shifted [16] over to the plaintiff.

[17] MR. BONO: Your Honor, on the [18] anticipation and obviousness.

[19] THE COURT: Yes.

[20] MR. BONO: It's been as the [21] testimony was presented, Dr. Howard did not [22] offer any anticipation opinion on Claim 8, and [23] he did not offer an obvious opinion on Claim 1. [24] His anticipation opinion was limited to Claim 1

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[1] and his obviousness opinion was limited to Claim [2] 8, and that's why we had only included Claim 1 [3] on anticipation and Claim 8 on obviousness.

[4] THE COURT: Yes. Can I hear from [5] defendants?

[6] MS. CORBIN: Your Honor, we will [7] agree to anticipation on Claim 1 and obviousness [8] on Claim 8.

[9] THE COURT: All right. So we'll [10] edit it to reflect the agreement between the [11] parties.

[12] MR. BONO: Thank you, Your Honor.

[13] THE COURT: Is there anything [14] further?

[15] MS. GABLER: Your Honor, can I ask [16] for a little clarification on how you're [17] presenting on the last page the damages number. [18] I believe it's undisputed at this point that [19] plaintiffs aren't seeking an award against [20] ViewSonic, Tatung or Tatung USA, they're only [21] seeking against CPT.

[22] THE COURT: Yes.

[23] MS. GABLER: And I want to make [24] sure the award form is going to be worded as

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[1] such. Is there any disagreement with that?

[2] THE COURT: That is the [3] understanding. It doesn't say against [4] defendants because I thought everybody [5] understood it was CPT. It says, "What sum of [6] money would fairly and adequately compensate [7] plaintiff for infringement?"

[8] MS. GABLER: We would like it to [9] indicate since they're only seeking it against [10] CPT so that there can't after the fact — we [11] have already seen some press in the courtroom [12] and if it was worded generically, it would be an [13] opportunity, even though they haven't been [14] seeking damages against the other three [15] defendants, for a press release to be indicating [16] that that award was made against those three [17] defendants also, and that doesn't accurately [18] reflect the positions taken in the case.

[19] And that would be a situation — [20] we just want to make sure that the judgment is [21] clear that the judgment can only be entered [22] against CPT since they have expressly disavowed [23] seeking a judgment or damages benefits against [24] the other three.

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[1] THE COURT: I thought that's why [2] this was worded to just on the — basically to [3] the plaintiff's side, but it's clear in the [4] record that only CPT is exposed to damages here. [5] The judgment order, if there is one that I enter [6] will only say CPT because that's what everybody [7] agrees to.

[8] Do you disagree with that, [9] Mr. Bono?

[10] MR. BONO: No, Your Honor, I think [11] the way to handle it is in the judgment order.

[12] MS. GABLER: That's fine.

[13] MR. YOVITS: Your Honor, we [14] recognize that in light of your ruling on the [15] jury instructions there won't be questions on [16] the verdict form regarding indefiniteness, [17] enablement or written description, but [18] defendants still feel that such questions would [19] be appropriate.

[20] THE COURT: All right. Your [21] exception is noted.

[22] Anything else? Of course, you [23] know, like I said, I just want to make it clear [24] on the record that anything you have asked for

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[1] either in paper or during the course of

the [2] trial would be an exception to what I have [3] ruled.

[4] MR. YOVITS: Thank you, Your [5] Honor.

[6] THE COURT: All right. Then we'll [7] take a five-minute recess and you'll need to [8] give that information to my law clerk about the [9] reference so we have it correct.

[10] MR. RHODES: Your Honor, how do [11] you want to handle objections to exhibits?

[12] THE COURT: I'll do them right now [13] for you.

[14] MR. RHODES: Okay.

[15] MR. SWEENEY: Good afternoon, Your [16] Honor, Jerry Sweeney.

[17] Your Honor, I think we can [18] accelerate the process pretty quickly here. [19] There were three days on which plaintiffs [20] offered into evidence a collection of exhibits [21] and what I would like to do is just address [22] those to which we object very quickly. [23] On July 17th, Plaintiff's Exhibit [24] Number 12 was submitted. What that is is a

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[1] compilation of thirteen prior exhibits [2] identified on the initial exhibit list, so that [3] one exhibit is a combination of what was [4] previously identified in the original exhibit [5] list as 312, 315, 316, 317, 318, 319, 321, 322, [6] 324, 327, 337, 339, and then two collections of [7] mask files which were previously identified as [8] 340.

[9] So with respect to our objection, [10] it is again a cumulative collection, stuffing [11] objection.

[12] Also on 7/18, Exhibit 13 was [13] submitted. That is a compilation of twenty-nine [14] prior exhibits identified on the initial exhibit [15] list. Those were previously identified prior to [16] their submission on the 13th as 313, 320, 323, [17] 325, 326, 328, two sections of — three sections [18] of 328, two sections from what was previously [19] 329, 330, there were three sections of what [20] previously came out of 331, there is two [21] sections out of 332, 333, 334, 335, 337, 338, [22] 341, 342, 343, 344, 345, 346, two sections of [23] what previously had been 347, 348, 349, 350, [24] 351, 352, 353, and 354, again, the same

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[1] objection.

[2] With respect to Plaintiff's [3] Exhibit Number 8 which was a mask file, no [4] questions were asked during the course of the [5] testimony. We object on a foundation basis.

[6] Plaintiff's Exhibit 28, two [7] photographs, again, no questions were asked

[8] during testimony, no foundation to the admission [9] of Plaintiff's Exhibit 28.

[10] Plaintiff's Exhibit 127 is an [11] interoffice memo from Honeywell which is dated [12] April 7, 1988. No questions were asked on that [13] exhibit and no foundation was laid.

[14] With respect to Plaintiff's [15] Exhibit Number 130, this is a letter from Scott [16] Holmberg to Mr. Zele. The letter was referred [17] to in the segment of the deposition that was [18] played, one segment of Mr. Holmberg's [19] deposition. There was no foundation laid for [20] this letter. And attached to this exhibit is a [21] document that was not referred to at all. That [22] is another Honeywell memorandum.

[23] And I would point out that with [24] respect to the January 21st, 1998 letter, when

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[1] it was referred to by Mr. Holmberg in his [2] deposition, it was referred to as a single page [3] document with the Bates stamp number LPL [4] 11013076, a single-page document.

[5] When it was submitted as [6] Plaintiff's Exhibit 130, it had an attachment to [7] it which is a second memorandum produced, or [8] prepared by its physical appearance from [9] Honeywell. There has been no foundation laid [10] for that document and no reference to it during [11] the course of any of the testimony.

[12] On July 21st, there are a number [13] of documents that were moved into evidence. The [14] following documents upon review were not [15] referred to during the course of testimony and [16] we object to those documents on the basis of [17] foundation, and those documents are previously [18] marked as Plaintiff's Exhibit Numbers 66, 67, 69 [19] through 73, 75 through 80, 83, 86 through 92, [20] 94, 99, 102, 104, 105, 111, 113, 114 through [21] 120, 133, 135, 137 and 138.

[22] One other comment with respect to [23] the letter, which has been marked as Plaintiff's [24] Trial Exhibit Number 130. I want to emphasize

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[1] in particular on that document that, again, [2] although Mr. Holmberg referred to it as a letter [3] that he sent, that letter is inadmissible under [4] any possible theory.

[5] No foundation was laid for it. It [6] has no probative value.

[7] The letter and contents itself is [8] filled with questions for Mr. Holmberg and [9] qualifications about the accuracy of the [10] information contained therein. There was no [11] effort made during Mr. Holmberg's deposition to [12] lay a founda-

tion for the admission of this [13] document.

[14] It's not relevant. If the Court [15] were to deem it to be relevant, it's [16] inadmissible as confusing. In my view, it's [17] complete hearsay, and there's no exception under [18] business rule, because this is a document that [19] was created by the date on it on January 21 of [20] 1998. And it recites and relates to events that [21] occurred ten years prior to the creation of the [22] document itself.

[23] THE COURT: All right. Thank you. [24] Ms. Corbin.

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[1] MS. CORBIN: Your Honor, I just [2] have one more issue. And that is I believe that [3] plaintiff's going to put on its rebuttal case on [4] obviousness.

[5] And in Dr. Schlam's validity [6] report, there is reference to those documents [7] which were excluded by those late-produced [8] Honeywell documents. And I just want to be sure [9] that there isn't going to be any explicit or [10] implicit reference to those for support that the [11] invention was made prior to the filing dates.

[12] And there is one other element [13] that — where Dr. Schlam's testimony is that the [14] yield, and this has to do with secondary indicia [15] of nonobviousness necessary that the combination [16] of the outer ring and inner ring combined create [17] a greater yield than either of those would [18] alone.

[19] And part — during his deposition, [20] he said part of the basis of that opinion was [21] conversations he had with two individuals at [22] another LCD manufacturing company. And he would [23] not even reveal the names of those individuals.

[24] So since he was unwilling to be

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[1] forth coming even with who those individuals [2] were, I don't believe he should be able to make [3] reference to that here.

[4] THE COURT: All right. Let's hear [5] plaintiff.

[6] MR. BONO: Your Honor, first of [7] all, let me address Exhibits 12 and 13, which I [8] guess we're getting hit now with an accusation [9] of stuffing.

[10] Your Honor, there were no [11] objections made on Defendants' objection list to [12] these two documents except for authenticity. [13] They had made the multiple document objection on [14] other documents, which we then corrected.

[15] So we understood that they were [16] not objecting to these on any multiple-

document [17] basis. In any event, those documents are part [18] of the four CD files, which are exhibits, I [19] believe, 4 through 7 in the case.

[20] Those are the books. And these [21] are just printouts of some pages in the book as [22] Your Honor described.

[23] So they never objected. They [24] didn't have a basis to object. And there should

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[1] be no problem with those documents.

[2] THE COURT: The objection will be [3] overruled as to Exhibit 12 and 13.

[4] MR. BONO: With respect to — let [5] me address the other series of documents that [6] they objected to. These are basically other STR [7] files, photos of modules, et cetera.

[8] Dr. Schlam did refer to them [9] generally in his testimony. And I think they [10] have been sufficiently identified for purposes [11] of admission.

[12] THE COURT: What exhibits are you [13] referring to in that? Are you referring to the [14] 8 and 28, or are you referring to Exhibit 66 [15] through 138 that were cited?

[16] MR. BONO: Certainly 8 and 28, [17] Your Honor. Let me look at 66.

[18] No. Those are — those have to do [19] with the witness.

[20] THE COURT: Something else. So [21] you're referring to 8 and 28, the mask file, the [22] date.

[23] MR. BONO: And the photos of the [24] one module, yes, Your Honor.

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[1] THE COURT: I'll overrule the [2] objection.

[3] MR. BONO: With respect to the [4] other documents, 66, 69 through 73, and the [5] other categories of the other ones that counsel [6] mentioned, they are all documents produced by [7] the defendants in this case, which are their own [8] business records.

[9] They were referred to in several [10] respects by the deposition testimony we read in. [11] And I don't see that there's any basis for the [12] objection on the part of defendants.

[13] THE COURT: Okay. Deposition [14] testimony, the objection is overruled as to the [15] series of exhibits beginning at 66 and ending at [16] 138 cited by Mr. Sweeney.

[17] MR. BONO: And then lastly is [18] the — [19] THE COURT: 127 and 130.

[20] MR. BONO: Yeah, with respect to [21] — with respect to 127, we'll withdraw the [22] exhibit, Your Honor.

[23] THE COURT: All right. The [24] ex-

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hibit is withdrawn.

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[1] MR. BONO: But as to Exhibit 130, [2] which is the letter from Mr. Holmberg with the [3] attachment, which is indicated on the letter, he [4] was asked about this letter by defendants in his [5] deposition. He sufficiently authenticated it, [6] and we believe it should be admitted.

[7] THE COURT: The objection will be [8] overruled. Exhibit 130 is admitted.

[9] MR. BONO: I think that's it.

[10] THE COURT: All right. Do you [11] have any exhibit objection that you wanted to [12] have taken up?

[13] MR. BONO: One second, Your Honor.

[14] THE COURT: Yes.

[15] MS. GABLER: Your Honor, in order [16] to give them full opportunity before lunch, I [17] did not move in the exhibits from this morning. [18] But when we come back, we are going to ask to [19] move in 68, 82, 83, 100, 101 and 113.

[20] So I just wanted to make sure on [21] those. I just wanted to give them an [22] opportunity at lunch to look over those.

[23] MR. BONO: Your Honor, let me [24] begin page by page. We object to Defendants'

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[1] Exhibit 1 and 7. These are handwritten drawings [2] that were made by Mr. Cho during his deposition.

[3] And prior to making the drawings, [4] he said that they were — they would be [5] inaccurate and unreliable, and he didn't have [6] the ability to draw accurate pictures. So given [7] the fact that they did not establish their [8] accuracy or reliability, we object to their [9] admission.

[10] THE COURT: Any others?

[11] MS. CORBIN: Your Honor, I think [12] the two exhibits that were drawn by.

[13] THE COURT: Woah. Woah. Woah. [14] He's not finished.

[15] MS. CORBIN: Oh, I didn't realize [16] that. Sorry.

[17] MR. BONO: Your Honor, we also [18] object to Defendant's Exhibit 12 as being a [19] multiple document in violation of Your Honor's [20] directive. We object to Exhibit 13, the [21] document on its face is incomplete, because it [22] does not include the attachment, which is [23] referred to on the letter.

[24] And we object to Exhibits 14, 15

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[1] and 16, because they are patents that are not in [2] suit in this case and are involved in other [3] litigation.

[4] THE COURT: All right. Thank you.

[5] MR. BONO: And Your Honor, Exhibit [6] 20, which also contains patents that are not in [7] suit and are involved in collateral litigation. [8] Oh, it's an amended order, so it's a court order [9] involved in other litigation that we believe [10] should not be admitted.

[11] We also — also Exhibits 18 and [12] 19, we object because they're an incomplete [13] document that they have pulled excerpts out of [14] Dr. Howard's report. So we object on those for [15] those two exhibits because they're incomplete.

[16] And we object to Defendant's [17] Exhibit 26, because this document is not an [18] exhibit. It really is a demonstrative that they [19] put a caption on, and we believe it's not an [20] exhibit. It should not be admitted.

[21] MR. BONO: Also, Your Honor, [22] Exhibits 36 through 44 also would fall in the [23] category of demonstratives and rather than [24] exhibits.

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[1] We also object to Exhibit 45 as an [2] incomplete document. Instead of having the [3] entire array, it contains only one page of a [4] multiple-page document.

[5] We also object to Exhibit 46, [6] which appears to be a publication or a book that [7] was not produced in discovery in this case.

[8] Finally, Your Honor, Exhibit 86 [9] and 88 deal with — it's a complaint. It's the [10] complaint in this case, but they're merely [11] trying to put that in, because it refers to the [12] '121 patent, which Your Honor ruled is not part [13] of this case.

[14] And also Exhibit 88, which is a [15] claim chart that refers to patents that are not [16] in suit in this case.

[17] Thank you, Your Honor.

[18] THE COURT: All right. Thank you. [19] Mr. Sweeney.

[20] MR. SWEENEY: Your Honor, in [21] looking at Defendants' Exhibits 13, 14, 15 and [22] 16, I believe that all of these are from [23] Mr. Holmberg's deposition and were, in fact, [24] contained within the video clips that were shown

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[1] to the jury during the case, and that would be [2] our basis for objecting to plaintiff's objection [3] THE COURT: All right. The [4] objection will be overruled.

[5] MR. SWEENEY: Your Honor, may I [6] address very briefly this Exhibit 130 for a [7] moment? This is the letter from Mr. Holmberg to [8] Mr. Zele.

[9] THE COURT: I already ruled on [10] that.

[11] MR. SWEENEY: I know. There is [12] one small item, though, if you wouldn't

mind [13] that I would like to mention.

[14] THE COURT: Go ahead.

[15] MR. SWEENEY: The issue really [16] here with Mr. Holmberg's letter is as much the [17] attachment to it as anything else. There was no [18] reference either during Mr. Holmberg's [19] deposition concerning this letter to the [20] attachment that's now being presented to the [21] jury as part of the evidence in this case, and [22] there was no reference to it during this case. [23] So there is no reference to this anywhere in the [24] testimony that has been presented to the jury.

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[1] so what is the April 20th, 1988 Honeywell [2] memorandum was neither referred to by [3] Mr. Holmberg nor identified during his [4] deposition, not identified on the videotape [5] played for the jury, nor referred to anywhere in [6] the trial testimony, so that is an [7] unauthenticated and new document.

[8] THE COURT: It's an attachment to [9] the letter, right?

[10] MR. SWEENEY: It's an attachment [11] to the letter, but it's an attachment to the [12] letter as presented by the plaintiffs in an [13] exhibit. It was not an attachment that was [14] referred to or identified in any way in reading [15] the transcript for Mr. Holmberg's deposition.

[16] THE COURT: I understand.

[17] MR. SWEENEY: And when the exhibit [18] was identified during the deposition, as I [19] mentioned it was identified as a single page.

[20] THE COURT: All right. Thank you. [21] Are you on, Mr. Sweeney, for [22] Exhibits 1 and 7?

[23] MS. CORBIN: Those are the Cho [24] drawings, Your Honor.

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[1] THE COURT: Yes.

[2] MS. CORBIN: Your Honor, although [3] the witness objected that he was not a very good [4] drawer, he was obviously able to draw a very [5] complete drawing and to testify with respect to [6] that drawing about what the function was of the [7] interconnection that he had drawn.

[8] THE COURT: The objection will be [9] overruled. It goes to weight.

[10] MS. CORBIN: And then with respect [11] to —

[12] THE COURT: 18 and 19, incomplete [13] exhibits.

[14] MS. CORBIN: 18 and 19. Those are [15] claim charts from Dr. Howard's expert report on [16] reading Claims 1 and 8 on the prior art that [17] he's been

[14] Did you hear that testimony?

[15] A: Yes, I did. I thought it was a [16] bit misleading.

[17] Q: Okay. Why do you believe it was [18] misleading?

[19] A: Well, when the patent examiner [20] gets a patent application, he looks through the [21] very broad database. I think you have a —

[22] MR. GOODWYN: Can I have the elmo, [23] please?

[24] THE WITNESS: So this is a record of

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[1] the Certificate of Search notes on this patent. [2] And the examiner looks through a large class of [3] materials, and then within that — those classes [4] large, subclasses. And these materials include [5] U.S. patents, foreign patents, including [6] Japanese patents and articles.

[7] And this is a record of the search [8] that he did on this particular patent [9] application. He looked through three classes.

[10] And within those three classes, he [11] looked through one, two, three, four, five, six, [12] seven subclasses, which consisted of hundreds of [13] patents and documents.

[14] He then went to the primary [15] examiner on two of those classes. There's Class [16] 357, and a primary examiner, I can't read the [17] name completely on 437.

[18] He then did a computer search and [19] then he actually went back and relooked at one [20] of these classes. And from this very extensive [21] search that he did, he came up with those five [22] references which he thought were most germane to [23] this application.

[24] Q: Do you have an understanding as to

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[1] whether the classes and subclasses include [2] foreign references?

[3] A: Yes. They include foreign [4] patents, including Japanese patents.

[5] Q: Okay. Well, let's now move onto [6] your opinion about validity.

[7] What is your opinion about [8] validity of the '002 patent?

[9] A: It's my opinion that the patent is [10] valid.

[11] Q: Okay. Now, what's the basis of [12] your opinion?

[13] A: Well, in reference to [14] anticipation, Dr. Howard said that Claim 1 is [15] not anticipated, and it is anticipated. I don't [16] believe it's anticipated by any of the prior [17] art.

[18] To be clear, the claim is [19] anticipated only if each and every element

as [20] set forth in the claim is found either expressly [21] or inherently described in a single prior art [22] reference and that simply is not the case in [23] this case.

[24] And my understanding is under the

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[1] law a defendant must prove invalidity by clear [2] and convincing evidence. And I think whatever [3] has been shown is far from that.

[4] Q: Well, do you remember Dr. Howard [5] discussing the Okawa reference?

[6] A: I do.

[7] Q: Do you have an opinion about [8] Dr. Howard's testimony?

[9] A: Yes. In reference to Claim 1, [10] Dr. Howard indeed conceded that Okawa's [11] invention does not teach removing his guard [12] ring. That in itself shows that it doesn't [13] impact the patent '002.

[14] Okawa's invention also does not [15] interconnect with conductors. So there were two [16] key elements in Claim 1 that Okawa's invention [17] does not teach.

[18] Q: Can you point out the figure on [19] the screen for us, please, as to which figure [20] does not teach removing a guard ring or [21] interconnecting with conductors.

[22] A: This is basically Okawa's [23] structure and nowhere does he talk about [24] removing that guard ring. Also the diodes that

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[1] he uses really isolate these lines from the [2] guard ring rather than interconnect, these are [3] MIM diodes, I think we'll discuss that in a [4] moment or two.

[5] Q: Well, let's get into why you [6] believe it doesn't disclose removing the guard [7] ring?

[8] A: Well, he just points out that the [9] guard ring is not necessary. Removing the guard [10] ring is not necessary. The LCD would still be [11] operable even if the guard ring remained in the [12] display. And I think yesterday Dr. Howard [13] conceded that removing the guard ring is not [14] disclosed and not necessary, nowhere does it say [15] remove the guard ring.

[16] Q: Why do you say that you don't need [17] to remove the guard ring?

[18] A: Well, because it's designed with [19] these diodes so that it doesn't interfere with [20] the functioning of the display. You know, it's [21] sort of designed like an inner guard ring that [22] always remains, and because of these MIM diodes [23] there it does not interfere with operation of [24] the display, so there is no need to remove it.

[1] Q: Are you referring to any figure in [2] particular that shows that the operation of the [3] display could — or the display could still [4] operate with guard ring and MIM diodes in place?

[5] A: This is the characteristic of the [6] MIM diode, it's a reverse diode so it operates [7] in both directions. And within that operating [8] range, the pixel diodes can still operate while [9] those MIM diodes are in there.

[10] Q: Can you explain to us why Okawa [11] does not disclose interconnecting with [12] conductors?

[13] A: Well, the MIM diode is a special [14] kind of diode, it's a metal-insulator-metal [15] diode. And in such, it just doesn't have — it [16] doesn't operate with conduction in that [17] insulator. So there is no conductor there. And [18] that's what we say, it actually separates the [19] lines with insulators rather than the [20] conductors.

[21] Q: Well, did you hear Dr. Howard [22] testify yesterday that Okawa is not limited to [23] MIM diodes?

[24] A: Yes. If we can put the next

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[1] picture on. The patent actually says that the [2] invention relates to the insertion of components [3] with reversible voltage breakdown properties.

[4] So the components with reversible [5] voltage breakdown properties are not silicon [6] diodes, they're special diodes. And as a matter [7] of fact, later on he says here, diode 3, which [8] is the diode that we're referring to, should be [9] one with a MIM (metal-insulator-metal) [10] structure. And as I mentioned, there is no [11] conduction process there.

[12] Q: Now, was the text that you first [13] pointed to about the reversible voltage [14] breakdown properties, was that the text that [15] Dr. Howard was relying on to explain why Okawa [16] could use other than MIM diodes?

[17] A: I think so, he was referring to [18] the diode, the silicon diode rings that are [19] typically used. But the wording specifically [20] says reversible voltage breakdown, and those [21] silicon diode rings just do not have reversible [22] voltage breakdown.

[23] Q: Can you explain to us how a MIM [24] diode operates?

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[1] A: Yes. I think basically a MIM [2] diode is a very simple structure. As the name [3] implies, it has metal, insulator and metal. And [4] as was discussed yesterday, and in fact [5] elucidated in the reference by the [6] internationally recognized expert, Dr. Hsieh, [7] basically there is a tunneling

process which is [8] a special quantum mechanical process, electrons [9] tunnel from this metal electrode to this metal [10] electrode across the insulator because of a high [11] field that's impressed on the insulator telling [12] the process is not a conduction process.

[13] Q: Is it your opinion that the Okawa [14] invention does not disclose each and every [15] limitation of Claim 1?

[16] A: Clearly not.

[17] Q: Can you tell us which ones are [18] missing?

[19] A: Sure. As we discussed, it does [20] not have interconnecting, so it doesn't teach [21] this limitation, which is the interconnecting [22] with the wires.

[23] Likewise, it doesn't teach this [24] limitation which requires interconnecting. And

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[1] as we said earlier, it doesn't teach removing.

[2] So it doesn't have this [3] limitation, either.

[4] Q: Well, Okawa also discloses a [5] figure regarding prior art; isn't that right?

[6] A: Yes, he does.

[7] Q: And Dr. Howard talked about that [8] figure as well, didn't he?

[9] A: Yes, he did.

[10] Q: Now, does that figure, the prior [11] art figure disclose each and every element of [12] Claim 1?

[13] A: No, it doesn't.

[14] Q: Okay. Can you explain why?

[15] A: Sure.

[16] Q: This is Figure 5 from the Okawa [17] patent, which does show the prior art figure disclose each and every element of [12] Claim 1?

[21] It's not coupled via a resistance. [22] If you recall, limitation four requires coupling [23] via resistance. And this just does not couple [24] via resistance.

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[1] The Okawa prior art also says that [2] it removes the connection, not the entire guard [3] ring. So it's not coupled via a resistance.

[4] And it doesn't remove the entire [5] guard ring.

[6] Q: Well, when you say it's not [7] coupled via resistance, did you hear Dr. Howard [8] testify that he interpreted your opinion as [9] anything falls within in your definition of [10] resistance?

[11] A: Yes. I was probably asked the [12] question by their counsel: Does anything [13] conduct to a certain degree? And the

answer is, [14] yes, you can measure the conductivity of any [15] material, you know, in the world. And you'll [16] measure some conductivity.

[17] But I never said or meant to say [18] that any material could be used as a resistance, [19] you know, in an application like this. When one [20] designs an electronic circuit, and when one [21] designs a building, you specify materials. You [22] don't necessarily specify any kind of concrete, [23] you specify the kind of concrete you need to [24] make the building work properly.

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[1] When you specify an electronic [2] circuit, you specify the materials that are [3] required to make this circuit work as you want [4] it. If you need a resistance, you utilize a [5] material which will provide the resistance that [6] you need. And certainly using a metal that has [7] almost no resistance is not appropriate.

[8] Q: Well, did you see the charts that [9] Dr. Howard created regarding characterizations [10] of materials?

[11] A: Yes.

[12] Q: Did you agree with those charts?

[13] A: Well, I think those charts are [14] being misused. Basically, those charts — one [15] of them comes from Professor Shay, as we [16] discussed also earlier. It mentions the range [17] of conductivities that can be seen in this whole [18] class of materials.

[19] And the other slide is trying to [20] say that that chart depicts materials that [21] either is this or that. And that's not the [22] purpose of that chart.

[23] For example, there's been pointed [24] out by them time and time again that ITO is a

Page 1960

[1] conductor. In fact, a reference by a design [2] engineer, liquid crystal engineer points out [3] it's a conductor.

[4] And indeed, ITO is a conductor and [5] is used for its conducting properties in this [6] type of application. But it's also well known [7] that ITO is a semiconductor.

[8] This is not controversial. I've [9] known this for years.

[10] Professor Shay points it out in [11] his textbook. Other articles point it out. ITO [12] is, indeed, a semiconductor.

[13] It is utilized in these displays [14] because it's a semiconductor, and because it's a [15] conductor. So to use those charts, to say, [16] well, if a material's conductivity falls here, [17] it's a this and not a that, is just incorrect [18] and inappropriate and a misuse, I believe, of [19] those charts.

[20] Q: Based on your analysis of the [21]

prior art reference, does Figure 5 of Okawa [22] disclose each and every element of Claim 1 of [23] the '002 patent?

[24] A: Clearly not. You know, it does

Page 1961

[1] not disclose coupling via resistance, and it [2] does not disclose removing said outer guard ring [3] as we just discussed.

[4] Q: Dr. Howard also spoke about [5] another reference, the Kawamura reference. Do [6] you have an opinion regarding the Kawamura [7] reference?

[8] A: Yes. It does not invalidate this [9] patent, either.

[10] Q: Why not?

[11] A: Well, for a number of reasons. [12] First of all, we did hear Mr. Holmberg's [13] testimony by deposition by film, and he did [14] point out that he conceived and reduced his [15] invention to practice prior to May 11th, 1988. [16] And the Kawamura patent is dated May 11.

[17] So according to the inventor, his [18] invention, '002, was conceived before the date [19] of the Kawamura reference. So that's one [20] reason.

[21] Q: Are there other reasons?

[22] A: Sure. [23] This is a drawing from Kawamura [24] which basically depicts his invention.

Page 1962

[1] This red — well, this is the [2] display. This is the collection of pixels as we [3] have discussed over and over again. This is his [4] guard ring. The pixel contacts that go to the [5] outside world, that go to the electronics, are [6] outside of the guard ring. Therefore, by [7] definition, this is an inner guard ring and not [8] an outer guard ring. And as an inner guard [9] ring, it just doesn't conflict with '002 Claim [10] 1.

[11] Q: Do you have any opinions as to [12] whether or not the guard ring is removed?

[13] A: Yes. Kawamura teaches [14] electrically disconnecting the guard ring at [15] certain locations, and he labels them 106. So [16] if you'll notice in the same figure, he says [17] remove it at that spot, or remove it at that [18] spot, that spot, that spot, that [19] spot, et cetera.

[20] Certainly this is not removing the [21] entire guard ring, it's just electrically [22] disconnecting it at certain spots.

[23] Q: Can you explain to us what it [24] means by removing it at just the spot?

Page 1963

[1] A: Well, what Kawamura teaches, and [2] he shows in his figures, this is the metal [3] connection that we were just talking about, and [4] you can see it three-

[13] CROSS-EXAMINATION

[14] BY MS. CORBIN:

[15] Q: Good afternoon, Dr. Schlam.

[16] A: Hello.

[17] Q: You were retained in this matter [18] by LPL, approximately, in April of this year; [19] correct?

[20] A: That's correct.

[21] Q: And you are being compensated for [22] your work in this case?

[23] A: I am.

[24] Q: At the rate of \$250 an hour?

Page 1970

[1] A: That's correct.

[2] Q: And at least as of the time of [3] your deposition, which was June 30th, I believe [4] you had put in about 200 hours on the case; [5] correct?

[6] A: That's correct.

[7] Q: And how much time have you put [8] into date preparing your opinions?

[9] A: I haven't added it all up, but I'd [10] say it's closer to 300 at this point.

[11] Q: You agree that an insulator can [12] become conducting and that, in fact, a MIM diode [13] can become conductive under certain voltages; [14] correct?

[15] A: You had asked that question. You [16] know, if one puts enormous mega voltage on an [17] insulator, it can, indeed, become conductive, [18] and a MIM diode can, indeed, become conductive.

[19] But the operation of these MIM [20] diodes in these displays doesn't put that [21] magnitude of voltage on them.

[22] Q: But the answer to my question is [23] yes?

[24] A: Can you say your question again?

Page 1971

[1] Q: That you agree that an insulator [2] can become conductive and a MIM diode, in [3] particular, can become conductive under certain [4] voltages?

[5] A: Under certain voltages, very large [6] voltages.

[7] Q: You didn't make that distinction [8] when I asked you that question at your [9] deposition, though, did you?

[10] A: I think it was clear that we're [11] talking about unusual circumstances.

[12] Q: Now, it's your opinion that it was [13] not obvious to combine the inner ring teaching [14] of Yudasaka and Oritsuke with the outer ring [15] teachings of Okawa and Kawamura; right?

[16] A: Well, I don't think Kawamura has [17] an outer ring teaching to begin with. But [18] certainly not with Okawa, it's not clear whether [19] that's an outer or inner ring.

[20] But, yes.

[21] Q: Well, bear with me for a minute, [22] then. If I ask you to assume that outer rings [23] were known prior to the time of the '002 [24] patents, and that the Yudasaka and Oritsuke

Page 1972

[1] references teaching the inner rings were known, [2] so I want you to assume those as I ask you the [3] rest of these questions.

[4] A: Okay.

[5] Q: It would be your position, right, [6] that the combination of using both the inner [7] ring and the outer ring provides more [8] electrostatic discharge protection then either [9] using the outer ring alone or the inner ring [10] alone?

[11] A: In principle, that's my position, [12] yes.

[13] Q: And, in fact, you related to me [14] that when I asked you why that would be the [15] case, you said it was like wearing belts and [16] suspenders; correct?

[17] A: I believe I said that. Yes.

[18] Q: And I asked you the opposite. Did [19] the inner ring provide any protection against [20] ESD damage that the outer ring alone did not? [21] And your position is that it may, indeed; [22] correct?

[23] A: That's correct.

[24] Q: And the analogy that you gave in

Page 1973

[1] that case is that it was essentially like [2] carrying an umbrella and wearing a raincoat in a [3] heavy rain?

[4] A: Well, you asked — you were asking [5] just about the inner ring. The analogy to the [6] umbrella and raincoat would be the use of both [7] rings.

[8] Q: Correct. So in your view, the [9] combining of the inner ring with the outer ring, [10] you analogize that to carrying an umbrella and [11] wearing a raincoat in a rainstorm; correct?

[12] A: I said there's a certain analogy. [13] You were pressing me on what does inner ring do, [14] and what does the outer ring do? And how do you [15] — how does the inner ring help, and how does [16] the outer ring help?

[17] And I came up with this analogy of [18] an umbrella and raincoat to try to show you that [19] electrostatic charge is everywhere. And two, in [20] principle, is better than one.

[21] Q: And you yourself have not [22] performed any tests that would evidence the fact [23] that the combination of the inner ring and the [24] outer ring provide greater protection for ESD

Page 1974

[1] protection then using either one of those alone; [2] correct?

[3] A: That's correct. I myself — I [4] myself have not performed any test.

[5] Q: You don't have any verifiable test [6] data on that subject, either?

[7] A: That is correct.

[8] Q: And you didn't offer any test data [9] in support of your opinion when you proffered [10] your report in this case; correct?

[11] A: I didn't have any, so I couldn't [12] offer any.

[13] Q: And you're also not — you do not [14] have and are not aware of any publications that [15] would support your view that use of both the [16] inner ring and the outer ring together provide [17] more electrostatic discharge protection than [18] using either one alone?

[19] A: Yes. I was asked that question, [20] and Dr. Howard was asked that question.

[21] And I think we both said the same [22] thing, that the use of these inner rings and [23] outer rings are really, really manufacturing [24] secrets that are closely held by display

Page 1975

[1] manufacturers. And they just won't publish on [2] things like that.

[3] So I'm not aware of any [4] publications.

[5] Q: The problem that was being [6] addressed by the invention in the claims that [7] are directed to the outer guard ring was a [8] reduction of yield due to electrostatic [9] discharge; correct?

[10] A: That's correct.

[11] Q: And the problem that was being [12] addressed by the invention in the claims of the [13] '002 patent that are directed to the inner ring [14] were addressing that same general problem?

[15] MR. GOODWYN: Objection, Your [16] Honor. This is beyond the scope of direct [17] examination on validity.

[18] THE COURT: I'll overrule the [19] objection. You can answer.

[20] BY MS. CORBIN:

[21] Q: Let me ask that again. [22] And the problem that was being [23] addressed by the invention and the claims of the [24] '002 patent that are directed to the inner guard

Page 1976

[1] ring is the same general problem, which is [2] reduction of yield due to electrostatic [3] discharge; correct?

[4] A: We're not addressing any claims [5] that just address the inner guard ring, we're [6] addressing Claim 1 which addresses just the [7] inner guard ring and Claim 8 which addresses [8] both the inner and outer.

[9] Q: But the references that address [10]

whole and the entirety of its teachings?

[11] A: Yes, I was.

[12] Q: And does the Okawa reference [13] actually teach within the four corners of the [14] publication itself outer guard rings, which are [15] removable?

[16] A: Yes.

[17] Q: And could we see Page 2 of the [18] Okawa reference, please.

[19] Can you see that, Dr. Howard?

[20] A: Yes.

[21] Q: Are you able to find where in the [22] text it teaches outer guard rings that are [23] removable?

[24] A: Well, yes, right — outlined by

Page 1990

[1] the green, that the connection is removed after [2] the manufacturing process is completed.

[3] Q: And he also referenced — sorry. [4] He also referenced and commented [5] upon the portion of Okawa that you pointed out [6] regarding the reference to reversible voltage [7] breakdown. And do I understand — and what did [8] you understand by that portion of the Okawa [9] reference?

[10] A: Well, I understood that because it [11] was in the claims, that it was intended for the [12] invention to apply to anything that provided [13] reverse diodes with reversible breakdown.

[14] Q: And does that include silicone [15] diodes?

[16] A: Yes, it includes the paired diodes [17] that are used by CPT.

[18] Q: The MIM, basically is an [19] implementation embodiment?

[20] A: Yes.

[21] Q: So the other portion that he was [22] referring to where it said here diode three [23] should be one with a MIM, metal-insulator-metal [24] structure, was that the claims or was that the

Page 1991

[1] text describing a specific embodiment?

[2] A: That was describing the [3] embodiment.

[4] Q: And Dr. Howard, there is reference [5] again to ITO. Is ITO ever used in an LCD [6] display as a semiconductor?

[7] A: No, it's not. It's always used as [8] a transparent conductor.

[9] Q: But again, in reference to — it [10] is plaintiff's allegation that the ITO, that is [11] the ITO jumpers in the outer guard ring provide [12] the resistance element of step four of Claim 1, [13] and you understand that; correct?

[14] A: Yes.

[15] Q: And does your opinion that the [16] jumpers are not the resistance of Claim 4, is [17] that dependent in any way on whether one [18] concludes that ITO is a semiconductor or whether [19] ITO is a conductor?

[20] A: No, it's not.

[21] Q: Now, there is reference to the [22] fact that Mr. Holmberg during his deposition [23] might have mentioned that he actually had [24] invented or conceived of his invention prior to

Page 1992

[1] filing date of the '002 patent. Are you aware [2] of any evidence in this case that corroborates [3] any invention before the filing date?

[4] A: No, I have not seen any such [5] evidence.

[6] Q: And is it your understanding that [7] in order to have a date earlier than the filing [8] date, that there must be written corroboration?

[9] A: That's my understanding, yes. I [10] was always told that when I was working with [11] patents and things.

[12] Q: And in order to — well — so, for [13] example, when you were at IBM, what did you do [14] with those working under you to corroborate [15] inventions that you may want to patent?

[16] A: Anyone that had a good idea was [17] instructed, we had laboratory notebooks with [18] numbered pages and we were instructed to write [19] it down, sign it and get someone to witness it [20] that said read and understood by a witness.

[21] Q: And have you seen any evidence [22] like that in this case —

[23] A: No, I have not.

[24] Q: — regarding the '002 invention?

Page 1993

[1] A: I have not.

[2] Q: There was reference to the [3] Kawamura prior art, and Dr. Schlam's view that [4] that reference teaches an inner guard ring. Is [5] that your opinion?

[6] A: No, it's not, as I expressed [7] before.

[8] Q: And he points particularly to a [9] figure which shows that the guard ring is [10] outside the active matrix pixel area, but inside [11] the driver pads. Does that affect your opinion?

[12] A: No, it doesn't.

[13] Q: Why not?

[14] A: Because it still is removable and [15] so it is still a ring that's used during [16] manufacture and not thereafter.

[17] Q: And if we could see page two of [18] Kawamura, please, and particularly the claims [19] section, Claim 2. And could you tell us why you [20] believe that the Kawamura reference teaches [21] re-

moving the entirety of the ring so that one of [22] ordinary skill reading this reference would [23] understand that that was possible?

[24] A: Yeah. It says here the very

Page 1994

[1] important words up here, "at least portions", so [2] even though he shows small areas to be etched [3] away, the fact that he says here "at least [4] portions" means he realizes that it didn't need [5] to be limited to that as far as removal with [6] that process.

[7] And then we also heard [8] Mr. Holmberg, it really doesn't matter how you [9] remove, whether laser or etching or whatever.

[10] Q: Do you agree with Dr. Schlam that [11] combining an inner ring with an outer ring is as [12] obvious as wearing belts and suspenders?

[13] A: I do.

[14] Q: Do you agree with Dr. Schlam that [15] combining the inner ring and outer ring is as [16] obvious in a heavy rain as wearing a raincoat [17] and carrying an umbrella?

[18] A: I do.

[19] MS. CORBIN: No further questions.

[20] RE-CROSS-EXAMINATION

[21] BY MR. GOODWYN:

[22] Q: Hello again, Dr. Howard.

[23] A: Hello.

[24] Q: You had a slide up yesterday, it

Page 1995

[1] said the inventor did not provide a single prior [2] art reference. The inventor is not required to [3] provide a prior art reference if they don't know [4] about it, are they?

[5] A: Of course not, if they don't know [6] about it. But they are required if they know [7] about it.

[8] Q: Did you see the deposition [9] testimony of Mr. Holmberg where he said he was [10] unaware of any references?

[11] A: Yeah, I believe I did see that.

[12] Q: You also said the examiner found [13] only five references; is that right?

[14] A: Well, that's what the history [15] indicated.

[16] Q: Did you mean to imply by that [17] comment that he only looked at five references?

[18] A: He only found five that he thought [19] were relevant and that he used. The way I [20] understand it, he only found five that he [21] thought were relevant and that he used in making [22] his opinion, in drawing his conclusions about [23] it.

confusing evidence, [17] but they have failed to show you that any of [18] those prior references show by clear and [19] convincing evidence that the patent is invalid.

[20] I want to skip ahead. I want to [21] point out that they — on Claim 1, they do not [22] allege Claim 1 is obvious. And they do not [23] allege Claim 8 is anticipated.

[24] So the only thing they allege that

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[1] they can try to allege is Claim 1 is [2] anticipated, and Claim 8 is obvious. I said [3] anticipation must be proven by clear and [4] convincing evidence, and they do not allege [5] Claim 8 is anticipated.

[6] What this all means is for Claim [7] 1, they have to show you that one reference, one [8] reference contains each and every element set [9] forth in the claim. If one element is missing, [10] there is no anticipation.

[11] It has to all be in one reference, [12] and it has to — and if anyone is missing, it's [13] not anticipated. Now, they rely on the Kawamura [14] patent, which you've heard about.

[15] This is not prior art at all. [16] Mr. Holmberg's conception and reduction to [17] practice predates Kawamura. Plus, Kawamura [18] teaches only inner guard ring on — inside the [19] driver pads. It does not teach an outer guard [20] ring, and it does not teach removal.

[21] Now, let me talk about [22] Mr. Holmberg's conception and reduction to [23] practice. Because if you find that he conceived [24] and reduced his invention to practice before

Page 2071

[1] May 11, 1988, which is the date of Kawamura, [2] it's not prior art. You don't need to consider [3] it.

[4] The application for the '002 [5] patent was filed on July 12, which is in the [6] record. And Kawamura, as I said, is May 11. [7] But the evidence before you shows that Mr. [8] Holmberg conceived and reduced his invention to [9] practice before May 11. You heard his [10] testimony.

[11] He said it more than once in his [12] deposition. We didn't take his deposition. The [13] defendants took his deposition.

[14] They were asking him the [15] questions, and he said it more than once. They [16] asked him: When did you conceive of this? When [17] did you reduce it to practice?

[18] You heard his testimony in this [19] Court. He testified that he conceived of the [20] invention in the fourth quarter of 1987 and [21] reduced it to practice in the first quarter of [22] '88, long before the

Kawamura date of May 11.

[23] Now, they're going to argue to you [24] that there's no corroboration, that you need

Page 2072

[1] some kind of corroborative document for you to [2] find that Mr. Holmberg knows what he's talking [3] about.

[4] Well, in this record, there is a [5] corroborating document, not written by [6] Mr. Holmberg, written by a third-party scientist [7] at Honeywell. And you will see in the record [8] it's part of the evidence, a April 20, 1988 memo [9] written by a scientist at Honeywell that [10] independently corroborates that Mr. Holmberg [11] conceived and reduced his invention to practice [12] before May 11.

[13] He didn't write the memo. A [14] scientist at Honeywell who was doing tests on [15] the Alphasil product.

[16] So, clearly, Mr. Holmberg [17] conceived and reduced his invention to practice [18] before Kawamura. They talked to you about [19] Okawa.

[20] Well, Okawa teaches you the use of [21] insulators. It doesn't teach inter-connecting [22] with conductors. And it doesn't teach removal, [23] either, despite their stretching.

[24] Now, Claim 8, they argue, is

Page 2073

[1] obvious. And as I mentioned before, there's no [2] evidence, no single reference discloses both [3] inner and outer guard rings.

[4] As I mentioned in my opening, they [5] searched the world. In fact, Dr. Howard didn't [6] even search himself.

[7] He admitted on the stand, [8] Chunghwa's lawyers did all the searching for [9] this stuff. And you can bet, you can just bet [10] that they searched everywhere they could look. [11] Because they're very good people, and they know [12] how to do that. They didn't find a single [13] reference that had both inner and outer guard [14] ring in the reference.

[15] And there's — as Dr. Schlam told [16] you, there was no motivation to combine an inner [17] and outer guard ring at the time. So there's [18] not really — it is not an obvious — although, [19] they will tell you in hindsight, that it's [20] obvious. Of course, everyone says, oh, that [21] looked obvious, you know, now that it's been [22] done.

[23] But Chunghwa Picture Tubes didn't [24] do it for four years. If it was so obvious, why

Page 2074

[1] didn't they do it? They didn't do it because it [2] wasn't obvious.

[3] Now, their burden is clear and [4] convincing evidence. And I want to just briefly [5] mention to you Dr. Howard's testimony on this. [6] Because I think it shows quite clearly that they [7] have not met their burden to show it by clear [8] and convincing evidence.

[9] What did Dr. Howard tell you in [10] his testimony? I found this quite fascinating.

[11] When he was asked about removal of [12] the guard ring, he said, Well, it's implicit in [13] Okawa. Not explicit.

[14] Well, if it's only implicit, it [15] isn't clear and convincing. He also said that [16] he had to interpret the figures in the text in [17] order to reach his conclusion.

[18] Now, he's a man that's well beyond [19] a person of ordinary skill in the art. He's [20] somebody with super skills. And he had to [21] interpret and study the patent in order to take [22] his position.

[23] It wasn't clear and convincing. [24] And they failed to show that.

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[1] He also said — he tries to say [2] that the guard ring in Kawamura is an outer [3] guard ring, because they need to say that. They [4] need to say that for their position. Otherwise, [5] if it's an inner guard ring, it's not — it's [6] not anticipatory evidence.

[7] Well, Kawamura, the guard ring, [8] and you've seen it in the figure, and I'm sure [9] they'll show it to you when they argue, is [10] inside the pads. It's in the — outside the [11] pads. They just want to call it — an outer [12] guard ring only has one guard ring and it's [13] inside the pads. It's not an outer guard ring. [14] Clearly, it doesn't meet the clear and [15] convincing standard.

[16] Now, in the law, there's certain [17] objective criteria that you can look at that [18] weighs against it being obvious. And the Court [19] will instruct you that you can look at certain [20] evidence of commercial success, long-felt need [21] or copying that would weigh against a finding of [22] obviousness.

[23] You've seen the record in this [24] case. The evidence is undisputed, LG Philips

Page 2076

[1] uses outer and inner guard rings in practically [2] all of its products. Chunghwa uses outer guard [3] rings or inner and outer guard rings in most of [4] its products.

[5] And in fact, Mr. Chiu told you [6] they used it now in virtually all of their [7] products after '02. We know from the record, [8] how many times did counsel ask Mr. Ho Lee [9] whether other LCD manufacturers used the '002 [10] technology? He believes most of them do.

[11] Clearly, there's been commercial [12]

yesterday, it was much [22] too long for you to have to do, but I showed you [23] in detail through the mask files, not the [24] schematics, exactly what is CPT's products.

Page 2204

[1] Let me just remind you about the [2] interconnection, which is whether there is [3] charge going through the semiconductor as you [4] saw on the screen over and over again.

[5] Please don't take my word for it, [6] don't take Ms. Corbin's word for it, don't even [7] believe our experts in this case, whether it's [8] mine or theirs. We have the testimony that was [9] presented to you in this courtroom by Mr. He, [10] the chief engineer from Chunghwa Picture Tubes, [11] and he told you and I read it to you yesterday [12] and there is no uncertain terms, he said the [13] following: "If that is a gate line, it will go [14] to the switch. Sometimes it will be turned on, [15] and sometimes it will be turned off. And under [16] the normal circumstances, it is not being turned [17] on, it is not connected to the outer guard ring [18] and only when there is a presence of significant [19] electrostatic like you mentioned earlier, this [20] will be turned on, and it will be connected to [21] the outer guard ring. Assuming that this yellow [22] refers to the STE layer when you look at it, it [23] looks like the STE layer and under that [24] circumstance they would be connected together."

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[1] What does that mean? It means [2] that just as we showed you, the lines are [3] connected together through conducting material, [4] through the amorphous silicon, and it's meant to [5] turn on like a light switch, and it's conducting [6] the charge through the rows.

[7] It's the same thing in your house. [8] And anyone would know this, you have power [9] coming in on a line from your circuit breaker [10] box, you have a light switch and you have a line [11] going up to your light. And when you throw that [12] switch on, the conduction occurs. If you turn [13] it off, you turn it off.

[14] Would anybody contend that your [15] power box is not connected to your light bulb [16] through conductors? Would anybody in their [17] right mind contend that because you have an on [18] and off switch, that means you're not connecting [19] through conductors?

[20] It defies common sense. And [21] that's what their argument does, defies common [22] sense.

[23] Now, she mentioned four things in [24] her opening this morning. Interconnecting, I

[1] just addressed it.

[2] Testing. What does testing have [3] to do with Claim 1? If you look at the Claim 1, [4] in Claim 1, the elements, you will have it back [5] in the jury room, the word testing does not [6] appear. There is no requirement for testing to [7] find infringement under Claim 1. That is [8] perhaps the biggest technical distraction that [9] they have presented you in this case.

[10] Resistance. You saw I put on the [11] screen yesterday the coupling between the gate [12] layer, through the ITO, the blue ITO to the [13] guard ring, red guard ring. You saw the ITO. [14] It was as clear as day. That is resistance.

[15] How do we know that? We know it [16] from their own testimony that I showed you [17] yesterday. And there is no question about this.

[18] Would you please put up number 32, [19] please.

[20] I showed you their own array spec [21] yesterday. And it says guard di kang on their [22] document and the translation means guard [23] resistance. Guard resistance, resistance, there [24] is their own array spec. I don't have to argue

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[1] it to you. They admit that there is a coupling [2] to the outer guard ring via resistance, their [3] own document.

[4] Notice they never argued about [5] that this morning. Ms. Corbin runs away from [6] this document because it is a damning document [7] to their case of arguing against resistance. [8] Also, it's very clear that the ITO provides [9] resistance.

[10] If you look at slide 33, please, I [11] showed you this yesterday. Did they talk about [12] it this morning? Absolutely no. Because it [13] shows that the ITO coupling provides resistance.

[14] There is — that is the gate metal [15] showing its resistivity. And there is the [16] source drain metal showing its resistivity, 18. [17] There is the ITO showing its resistivity of 221 [18] and 275. Their own document shows that it has [19] twenty to fifty times more resistance than what [20] it's connected.

[21] They tell you this morning — this [22] is very curious. They put — they use the ITO [23] to maximize current.

[24] Think about this. The ITO is

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[1] providing resistance more than the metal layers. [2] If you wanted to maximize current, you would use [3] metal. You would not use ITO. Their argument [4] is completely flawed.

[5] Finally, they tried to defend [6] their use this morning of schematics. I'm sure

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[7] in light of my comments from yesterday, they [8] thought about this all evening long — can I [9] have the elmo — to try to resuscitate their [10] position. They showed you this.

[11] And they claim that this — they [12] still try to claim to you that this is an [13] accurate drawing of Dr. Schlam's drawing. Well, [14] let me show you this.

[15] Do you see that outer guard ring [16] they draw as one structure? For example, in [17] Dr. Schlam's quick drawing, he showed it in much [18] more detail. What did he say? That there was a [19] source drain metal layer. There was a [20] resistance layer. And there was the gate metal [21] layer.

[22] And you remember from the 3-D I [23] showed you, this gate metal is the red on the [24] bottom, the source drain metal was the layer on

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[1] top of it, and that resistance symbol was the [2] IT — blue ITO that came around. So that's how [3] you depict that in a schematic.

[4] What they showed you, does that [5] show that? No.

[6] It doesn't show what Dr. Schlam [7] was telling you. And they had the audacity this [8] morning to say that that's accurate. It's not. [9] It exemplifies the problem with schematics. [10] They're good to a certain point, but if they [11] don't give you enough detail, they really are [12] misleading.

[13] Now, I noticed that they showed [14] you one board here this morning than had mask [15] files. I just want to remind you what they [16] showed during the testimony of their expert, [17] because you may — because they run away from [18] this. This is what they took in the testimony [19] of Dr. Howard, this is what they used.

[20] They used that. They used that. [21] You remember this. They used that. They used [22] that. And they used that.

[23] THE COURT: Now, Mr. Bono, we're [24] going to take a break here. All right.

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[1] We'll take a 10-minute recess.

[2] Jury leaving the courtroom at [3] 11:27 p.m.)

[4] THE COURT: All right. We'll be [5] in recess.

[6] (A brief recess was taken.)

[7] THE CLERK: All rise.

[8] THE COURT: All right. The jury's [9] on its way in.

[10] Jury entering the courtroom at [11] 11:38 a.m.)

[12] THE COURT: All right. Be seated, [13] please.

[14] Mr. Bono.

[15] MR. BONO: Thank you. [16] Ladies and gentlemen, I promise [17] you, just a couple more minutes.

wanted to show you to remind you of what the defendants used during the [20] examination of their expert witness. They used [21] this document, and this document and about six [22] or seven others like this.

[23] Now, not only are these not mask [24] files, which are the actual depictions of their

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[1] products, those aren't even schematics. These [2] are nothing more than cartoon figures put [3] together by the lawyers to argue what they think [4] are in the products. And this is what they used [5] with Dr. Howard to get him to render his [6] opinions.

[7] Now, one of their arguments has [8] been repeatedly about the diode saying, it [9] doesn't conduct. Well, Dr. Howard answers that [10] question.

[11] And in his trial testimony, he [12] told you that these diodes do conduct. His [13] answer to a question was, Well, with the [14] electrostatic discharge, when the electrostatic [15] discharge comes, when voltage builds up here, [16] this diode begins to conduct.

It's say it's a positive voltage, [18] so the positive voltage would be this diode [19] here. This diode begins to conduct through the [20] silicon.

[21] He told you that The switch goes [22] on, and it conducts.

[23] Yet, they try to tell you this [24] morning, and through this case, that it doesn't.

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[1] It does, and Dr. Howard admitted it. [2] Now, I would like to just turn [3] very briefly to the issue of validity, because [4] the defendants must be very concerned that [5] you're going to believe and find that they [6] infringe, because they talked so much about [7] validity.

[8] And I think you should start your [9] validity analysis by, again, remembering he [10] words of Dr. Howard himself. And what he told [11] you in his direct testimony in this Court, and I [12] read it to you yesterday.

[13] Ms. Corbin asked him this simple [14] question: So given that, is there anything you [15] find that's actually new or different in the [16] '002 patent that is not in the prior art?

[17] And he answered very truthfully, [18] The use of a resistance to couple connected [19] lines in the definition, a specified resistance [20] used to minimize the surge of electric current, [21] that is

not found in the prior art.

[22] I don't understand how they can [23] present a lack of validity case to you in light [24] of that admission.

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[1] But let me show you something that [2] really emphasizes the lengths that they will go [3] to to convince you that even though Dr. Howard [4] told you that that element was new and not found [5] in any prior art. They talked to you about the [6] Kawamura reference. And here is the figure from [7] Kawamura.

[8] And you'll recall that Dr. Howard [9] spoke to you about portions of the wiring being [10] removed by etching. Do you remember that? And [11] he was saying that shows removal.

[12] Well, when you look at the Figure [13] 3 in the Kawamura patent, you see that this is [14] the guard ring. And these spots, one, two, [15] three, four, five, six, seven, eight, those are [16] the spots that the written words talk about [17] removal by etching.

[18] And where are those spots? [19] They're not on the guard ring, are they? [20] They're on the interconnection line. The patent [21] is only talking about etching portions of the [22] interconnections. It has nothing whatsoever to [23] do with removing the guard ring, or even etching [24] the guard ring.

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[1] Dr. Howard just tries to read that [2] into it. It is not there. Kawamura has nothing [3] to do with removal of a guard ring. That shows [4] it absolutely and clearly.

[5] And without that element, that is [6] not prior art. That invalidates the patent [7] because the Judge will instruct you that you [8] have to have — every element has to be in a [9] prior art, and the removal requirement is not in [10] Kawamura.

[11] Let's turn to Okawa just for a [12] second. Can you please pull up page seven. And [13] you'll see in his testimony yesterday, [14] Dr. Howard again, he wants to find — oh, he's [15] desperate to find removal of a guard ring [16] because he knows without that, these prior art [17] don't even have the possibility of invalidating [18] this patent, Claim 1.

[19] So what he looks at, and you'll [20] recall his testimony, he referred to the [21] language during the manufacturing process, and [22] based solely on that language, he says, oh, that [23] means — that must mean that there must be a [24] removal after the manufacturing process.

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[1] Yet where he describes the effects [2]

of the invention, it doesn't say anything about [3] removal, it just says that ESD is protected [4] during the manufacturing process.

[5] Well, we all know that an inner [6] guard ring that stays with the product protects [7] against electrostatic discharge during the [8] manufacturing process. There is no statement [9] here or any words of removal. There isn't even [10] a hint. Certainly not clear and convincing [11] evidence that they have to show that this [12] indicates removal.

[13] And what did Dr. Howard say in his [14] trial testimony when asked about this? He says [15] in response to a question:

[16] "QUESTION: But with respect to [17] Figure 2, there is no discussion about removing [18] the guard ring, is there?

[19] "ANSWER: There is no discussion, [20] it's just — it just seems to be implicit in his [21] statements."

[22] I submit to you if that's the [23] basis of his opinion, it certainly is not clear [24] and convincing evidence for the defendants to

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[1] meet their burden. And I submit to you he's [2] pulling the removal requirement out of thin air.

[3] I appreciate your time this [4] morning and I appreciate very much the time and [5] effort you spent listening to this trial. We [6] now turn this case over to your deliberation and [7] your good judgment. [8] And we ask that you find [9] infringement. We ask that you find inducement [10] of infringement, willful infringement, and that [11] you find the patents valid, and that you return [12] a judgment of \$52,447,000, because that's the [13] right and just thing to do in this case.

[14] Thank you very much.

[15] MS. CORBIN: Your Honor, may I [16] have two minutes on validity?

[17] THE COURT: Yes.

[18] MS. CORBIN: I am glad Mr. Bono [19] mentioned that thing about what Dr. Howard said [20] on my questioning during his direct examination. [21] Because Dr. Howard, though plaintiff's counsel [22] would like to paint him otherwise, is very [23] intellectually honest. And what he said is when [24] you understand, under the Court's claim

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[1] construction, what resistance is, a specified [2] resistance, a fixed resistance that is used to [3] minimize the current surge, he did look in the [4] prior art, and he didn't see that.

[5] But that's not what CPT's products [6] do, and this is what I was talking about.

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[1] United States a product made by using the [2] patented process by filing a lawsuit for patent [3] infringement.

ere, LPL, the patent owner, has [5] CPT, Tatung, Tatung America, ViewSonic, the [6] accused infringers, and has alleged that their [7] LCD products infringe one or more claims of the [8] '002 patent.

[9] The defendants that I have told [10] you deny they infringe and they claim that the [11] patent is invalid.

[12] Patent law provides that any [13] person or business entity which makes, uses or [14] sells, or imports into the United States without [15] the patent owner's permission any product, [16] apparatus or method legally protected by at [17] least one claim of a patent within the United [18] States before the patent expires infringes the [19] patent.

[20] Infringement may be direct or by [21] inducement. I'm going to explain both types of [22] infringement.

[23] CPT, Tatung, Tatung America and [24] ViewSonic will be liable for directly infringing

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[1] LPL's patent if you find that LPL has proven by [2] a preponderance of the evidence that these [3] defendants have imported into the United States [4] or sold to sell, sold, or used within the [5] United States a product which was made by a [6] process patented in the United States if the [7] importation, offer to sell, sale, or use of the [8] product occurred during the term of LPL's [9] patent.

[10] If you find that even one sale, [11] offer to sell, or import of an infringing [12] product occurred in the United States, then you [13] have found direct infringement.

[14] LPL asserts as I have told you [15] that the defendants have actively induced others [16] to infringe the patent. To show induced [17] infringement, LPL must prove that it is more [18] likely than not that someone has directly [19] infringed the patent and that the defendants [20] actively and knowingly aided and abetted that [21] direct infringement.

[22] LPL must show that the defendants [23] actually intended to cause the acts that [24] constitute direct infringement and that

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[1] defendants knew or should have known that their [2] actions would induce actual infringement.

[3] It is not necessary to show that [4] the defendants have directly infringed as long [5] as you find that someone has directly infringed. [6] If there is no direct infringement by anyone, [7] defendants

have not induced infringement. If [8] defendants provide an instruction or directions [9] to perform the infringing act through labels, [10] advertising, or other sales method, or supplying [11] the components used in an infringing product or [12] method with the knowledge and intent that their [13] customers would use the components to make, use, [14] or sell the patented invention, this may be [15] evidence of inducement to infringe.

[16] Now, there are two ways in which a [17] patent claim may be directly infringed. First, [18] a claim may be literally infringed. Second, a [19] claim may be infringed under what the law calls [20] the Doctrine of Equivalents.

[21] For one of the accused products to [22] literally infringe any one of LPL patent claims, [23] the subject matter of the patent claim must be [24] found in that accused product. In other words,

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[1] LPL's patent claim is literally infringed if the [2] accused product was manufactured using each [3] method step in LPL's patent claim.

[4] If CPT's LCD module omits any [5] single step recited in LPL's patent claim, CPT's [6] module does not literally infringe that claim.

[7] You must determine literal [8] infringement with respect to each patent claim [9] individually. Remember, the question is whether [10] the accused product infringes any claim of LPL's [11] patent, and not whether the accused product is [12] similar or even identical to a product made by [13] LPL.

[14] Accordingly, you must be certain [15] to compare each of the products and the process [16] used to manufacture those products with the [17] claims they are alleged to infringe and not with [18] any product made by LPL.

[19] If you decide that CPT's [20] manufacturing methods do not literally infringe [21] an asserted patent claim, you must then decide [22] whether CPT's methods infringe an asserted claim [23] under what is called the Doctrine of [24] Equivalents.

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[1] Under the Doctrine of Equivalents, [2] the method can infringe an asserted patent claim [3] if it includes steps that are identical or [4] equivalent to the requirements of the claim. If [5] the method is missing an identical or equivalent [6] step to even one step of the asserted patent [7] claim, the method cannot infringe the claim [8] under the Doctrine of Equivalents.

[9] Thus, in making your decision [10] under the Doctrine of Equivalents, you

must look [11] at each individual requirement of the asserted [12] patent claim and decide whether the method has [13] an identical or equivalent step to that [14] individual claim requirement.

[15] A step of a method is equivalent [16] to a requirement of an asserted claim if a [17] person of ordinary skill in the field would [18] think that the differences between the step and [19] the requirement were not substantial as of the [20] time of the alleged infringement. One way to [21] decide whether any difference between a [22] requirement of an asserted claim and a step of [23] the method is not substantial is to consider [24] whether as of the time of the alleged

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[1] infringement the step of the method performed [2] substantially the same function in substantially [3] the same way to achieve substantially the same [4] result as the requirement in the patent claim.

[5] In deciding whether any difference [6] between a claim requirement and the method is [7] not substantially, you may consider whether, [8] again, at the time of the alleged infringement, [9] persons of ordinary skill in the field would [10] have known of the interchangeability of the step [11] with the claimed requirement. The known [12] interchangeability between the claim requirement [13] and the step of the method is not necessary to [14] find infringement under the Doctrine of [15] Equivalents. The same method step of the [16] accused method may satisfy more than one element [17] of a claim.

[18] There are two situations wherein [19] resort to the Doctrine of Equivalents to find [20] infringement is not permitted. First resort to [21] the Doctrine of Equivalents to find infringement [22] is not permitted if you find that the defendants [23] — the defendant is merely practicing what was [24] in the prior art to the patented invention, or

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[1] that which would have been obvious in light of [2] what was in the prior art.

[3] This is because a patent owner [4] should not obtain, under the Doctrine of [5] equivalents, coverage which he could not have [6] lawfully obtained from the Patent Office. [7] Accordingly, to find infringement under the [8] Doctrine of Equivalents, you must find that the [9] patent owner has proven that he could have [10] obtained from the Patent Office a hypothetical [11] patent claim similar to Claim 8, but broad [12] enough to literally cover the method used to [13] manufacture the accused product.

[14] Second, resort to the Doctrine of [15] Equivalents to find infringement is not [16] permitted if you find that the patent